



# Agenda Report

October 26, 2020

**TO:** Honorable Mayor and City Council

**FROM:** Department of Transportation

**SUBJECT: AUTHORIZE THE CITY MANAGER TO EXECUTE A CONTRACT WITH CONNEXIONZ, LTD. FOR \$1,533,220 FOR HARDWARE, MAINTENANCE AND SUPPORT FOR THE PASADENA REAL-TIME TRANSIT VEHICLE ARRIVAL INFORMATION SYSTEM**

## **RECOMMENDATION:**

It is recommended that the City Council:

1. Find that the following proposed action is exempt from the California Environmental Quality Act ("CEQA"), pursuant to State CEQA Guidelines per Section 15061 (b)(3); and
2. Authorize the City Manager to enter into a contract, without competitive bidding pursuant to City Charter Section 1002(F), contracts for professional or unique services, with Connexionz, Ltd for hardware, maintenance and support in an amount not to exceed \$889,503 (which includes a contingency of \$119,371) over a five-year period; and
3. Authorize the City Manager to: a) extend the contract for one two-year option term in the amount of \$366,777 (which includes \$50,590 in contingency); b) to purchase optional hardware in the amount of \$183,927; and c) to expand the maintenance, warranty and support for a fleet of up to 60 public transit vehicles in the amount of \$93,013 with a maximum contract length of seven years and a not to exceed contract amount of \$1,533,220; and
4. It is further recommended that the City Council grant the proposed contract an exemption from the Competitive Selection process pursuant to Pasadena Municipal Code Section 4.08.049(B) contracts for which the City's best interests are served.

## **EXECUTIVE SUMMARY:**

The Transit Vehicle Arrival Information System (TVAIS) is the integrated central management system for Pasadena Transit, essential to all aspects of transit operations.

The system is a critical component to keeping Pasadena Transit safe, efficient, and reliable. The proposed contract with Connexionz will continue to deliver the essential dispatching, fare collection, schedule adherence, surveillance system, live vehicle health monitoring system and on board communication system used on a daily basis, while enhancing the system's reliability. It will also continue to provide the dependable real-time bus arrival information to Pasadena Transit passengers in a seamless, accessible and equitable way that is consistent with Title VI of Civil Rights Act of 1964, the Americans with Disabilities Act (ADA), the standards adopted by City Council in the Pasadena Street Design Guidelines, and Metro's Transfer Design Guidelines.

The proposed action provides for five year maintenance and support the TVAIS integrated central management system and allows for fleet expansion and system redundancy.

### **BACKGROUND:**

One of the City of Pasadena's General Plan guiding principles is, "Pasadena will be a city where people can circulate without a car." Having a seamless experience on Pasadena Transit and a reliable public transit system supports this goal. To achieve this goal, in 2012, City Council authorized the City Manager to enter into an agreement with Connexionz, Ltd. for the deployment of the City's TVAIS. This 100% grant funded procurement, inclusive of a required 20% local match, complied with both the City and federal competitive selection process. This original grant funding included \$834,077 from Federal Transit Administration (FTA) Section 5309 and \$683,150 from the Metro Call for Projects. By June 2015, the Connexionz system was implemented providing passengers real-time arrival information to the public via smartphone apps, online, and by phone. In 2016, this real-time arrival information became available to customers via solar powered displays (i.e., BusFinders) installed at key bus stops throughout the City. As a result of the implementation of this project, TVAIS is the central management system connected to all aspects of operations, including passenger information.

In 2017, the City adopted the Pasadena Street Design Guidelines that identified the City's bus stop design standards. These Guidelines prioritize the installation of various types of transit amenities, including real-time signage (i.e., BusFinders), at bus stop locations based on ridership levels, transfers with other transit lines, and connections to key local and regional destinations in the City. Since the adoption of the Guidelines and as funds became available through various grants and development conditions, BusFinders have been installed throughout the City. In addition, Metro has also issued bus stop guidelines for jurisdictions to use in order to ensure equitable, accessible, and seamless mobility within the regional public transit network. One of the tools Metro identified is the provision of real-time information at bus stops. In 2018, as part of the original grant funding for the City's real-time system, Connexionz developed an upgrade to the BusFinders to also display Metro real-time bus arrival on BusFinders at shared bus stop locations.

The City has been audited by Metro on behalf of the Federal Transit Administration (FTA) to confirm the installation of this grant-funded real-time system, including the BusFinder devices. As of 2020, about 30% of Pasadena Transit's nearly 400 bus stops are equipped with a BusFinder. These BusFinders are very popular among transit users, they

are actively used by customers, and facilitate seamless local and regional transit use. A review of select bus stops found that a BusFinder at a lightly used bus stop may be accessed for bus arrival information at an average of 1,000 times per month during the pandemic when ridership is about half of what is typical. At stops with heavy ridership the usage is five times that amount.

### Integrated Transit Central Management System

Although the most visible component of the TVAIS system to the public is the real-time transit arrival information that is provided, it is only one component of the much larger integrated central management system that is essential to keeping Pasadena Transit safe, efficient and reliable. The chart attached (Attachment A) illustrates how TVAIS is integrated into virtually all aspects of the daily transit operations, including dispatching, safety, maintenance, fare collection, service development, performance monitoring, schedule adherence, data collection, onboard communication to riders, customer service, and regulatory compliance.

### System Redundancy

The new contract will replace the central server with a hosted cloud based server. This transition to a hosted server will provide critical redundancy and further enhance the reliability of this essential system and eliminate vulnerabilities associated with having a single physical server.

### Civil Rights and Accessibility

Per the federal transit funds the City has received, there a number of federal requirements the City must comply with, including Title VI of the Civil Rights Act of 1964 and the ADA. As part of the City's federally approved Title VI plans, TVAIS provides critical components to ensure equitable, inclusive, and accessible transit services, including both on board the buses and at bus stops. The ADA requires visual and audio announcements to passengers on board buses informing them of the next bus stop location, both of which are provided by TVAIS.

While smartphones have become increasingly prevalent, not all transit users are in a position to have a smartphone, a data plan that supports apps or the technical skill to download an app. In the last passenger survey conducted in 2016, 57% of Pasadena Transit passengers reported having an annual income of under \$20,000 and 20% of passengers reported not having a smartphone. To address this potential inequity at bus stops, BusFinders are an essential component of providing equal access to real-time information. The BusFinders, which support both the City's Street Design Guidelines and Metro's bus stop guidelines, provide an equitable means of providing real-time information to those in the community who do not have the resources for a smartphone, access to the internet, or are unbanked. In addition to helping the City comply with these federal requirements, these TVAIS components have resulted in Pasadena Transit being a more welcoming and seamless transit service to passengers unfamiliar with the transit system or with Pasadena.

### Connexionz

In order for the system and all its functions to work properly, Connexionz equipment and software is required. The TVAIS architecture integrates proprietary Connexionz software with proprietary Connexionz hardware on board buses and at bus stops to provide the various outputs and functions associated with the real-time transit arrival information and integrated central management system.

The Connexionz hardware on Pasadena public transit vehicles and bus stops has a combined value of over one million dollars with a ten-year useful life. The ongoing support and maintenance for BusFinders in the proposed contract with Connexionz is approximately \$20 per BusFinder per month. This low rate is only feasible because the communication system that supports the BusFinders is one way radio based instead of cellular based. A cellular based system would have required a cellular plan for each BusFinder in addition to the maintenance and support. The first five years of maintenance and support was grant funded. With the combined value and five of the ten years of life still remaining in the system, an exemption from competitive selection is in the best interest of the City. This action will allow the use of the hardware's full useful life.

The proposed contract with Connexionz, Ltd. will provide the following ongoing support, maintenance and upgrades to the current TVAIS system.

1. Five years (and the option of two additional years) of maintenance, warranty and 24/7/365 support essential to ensure reliable function of the integrated central management system and the dissemination of real-time transit arrival information for up to 50 vehicles in the public transit fleet. The fleet is currently made up of 46 vehicles and can expand to 50 at no additional cost.
2. The purchase and installation of the TVAIS equipment on five new replacement Pasadena public transit vehicles that will be delivered by the end of Fiscal Year 2022.
3. The purchase of replacement hardware for the transit vehicle surveillance system which allows for additional video storage.
4. The purchase of upgraded software to provide real-time passenger capacity information to the public, to help with social distancing on buses.

The proposed contract also has three options.

- A. Extend the five year contract for maintenance, warranty and 24/7/365 support for an additional one two-year term.
- B. If funding becomes available during the first five year term or the option term, purchase up to 40 additional BusFinders. The maintenance and support for this additional hardware is included in the recommendation.
- C. If funding becomes available to expand the Pasadena public transit fleet beyond 50 vehicles, maintenance, warranty and support for a fleet of up to 60 vehicles.

Pending Council authorization to award the contract, the new agreement will be in effect beginning January 5, 2021, following the expiration of the current warranty contract. The

five year base term of the new agreement will expire on January 4, 2026, with the option to exercise a two year extension through January 4, 2028.

**COUNCIL POLICY CONSIDERATION:**

This proposed action supports the General Plan guiding principle, “Pasadena will be a city where people can circulate without a car” and will directly assist the Department of Transportation in implementing major objectives of the Mobility Element, including promoting a livable community and encouraging transit as a non-auto travel alternative. Citywide transit use will be supported with the ongoing support of the real-time arrival information and all the systems integrated transit operation functions.

**ENVIRONMENTAL ANALYSIS:**

The proposed action to approve a contract with Connexionz, Ltd. to expand the deployment of the real-time transit vehicle arrival information system has been determined to be exempt from CEQA per Section 15301, Existing Facilities. The proposed action to enter into this contract will not result in any significant change or increase in service.

**FISCAL IMPACT:**

The cost of this action is \$889,503 for the initial 5-year term of the contract. Funding for this action will be addressed by the utilization of existing budgeted appropriations in the Department of Transportation Transit Division budget (Accounts 20924043-811400) and from the Capital Improvement Program (CIP) 75085 and 75086. The Transit Division budget will fund the maintenance and support components with Proposition C Local Return funds and the CIP will fund the vehicle hardware components with a combination of Proposition A and C Local Return funds. It is anticipated that \$246,013 (which includes \$127,968 from the Transit Division budget and \$118,045 from the CIP 75085) will be spent during the current fiscal year. The remainder of the costs will be spent over the next four fiscal years. Expenses for optional items (term extension, additional bus finders, and addition to fleet) to the base contract will be funded with existing operating budget and the capital project budgets identified, as well as, any grant funding that may become available during the term of the contract. The following table represents a contract summary for the first five years.

Base Contract	\$ 770,132
Contingency	\$ 119,371
Total	\$ 889,503

Current budget appropriation for this contract are available from the following funds:

<b>Funding:</b>	
Transit Operating Budget (20924043-811400)	\$ 755,028
Purchase of Fixed Route Transit Vehicle Project (75085)	\$ 118,045
Purchase of Dial-A-Ride Vehicles (75086)	\$ 16,430
<b>Total Contract Amount</b>	<b>\$ 889,503</b>

The buses equipped with the Connexionz hardware will continue to be operated and maintained under the City's transit operations contract with First Transit, Inc. This contract for the fixed route operations and vehicle maintenance is included in the Department of Transportation's operating budget.

Respectfully submitted,



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Attachment:

Attachment A – Connexionz TVAIS Integrated Central Management System